

CURRENT AFFAIRS

WEEKLY

WEEK-3
AUGUST
2020

MAINS

- ➊ **Transparent Taxation**
ECONOMY
- ➋ **Kerala stares at Flood Havoc for Third Straight Year**
GEOGRAPHY
- ➌ **India announces \$500 million for Maldives**
INTERNATIONAL RELATIONS
- ➍ **30 years since Mandal Commission recommendations**
- ➎ **Daughter's equal right to ancestral property: SC**
- ➏ **Finally NSCN puts 'The 2015 Framework Agreement' in Public Domain**
POLITY
- ➐ **Role of ISRO in Development Activities**
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- ➊ **Demand of Organic Farming showing upward Trend**
AGRICULTURE
- ➋ **Canada's Milne ice shelf collapsed**
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- ➐ **Call to bring Arunachal Pradesh under the ambit of the Sixth Schedule**
- ➑ **Union Public Service Commission gets a new Chairman**
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- ➒ **New tick-borne virus in China**
SCIENCE & TECHNOLOGY
- ➓ **Starship Spacecraft**
SPACE

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— NOTE —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST

WEEK- 3 (AUGUST, 2020)

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SECTION: A
(MAINS)

CURRENT AFFAIRS

TRANSPARENT TAXATION

CONTEXT

In a latest development, the government has launched drive to make taxation fairer and taxpayers fearless in the country.

◎ ABOUT:

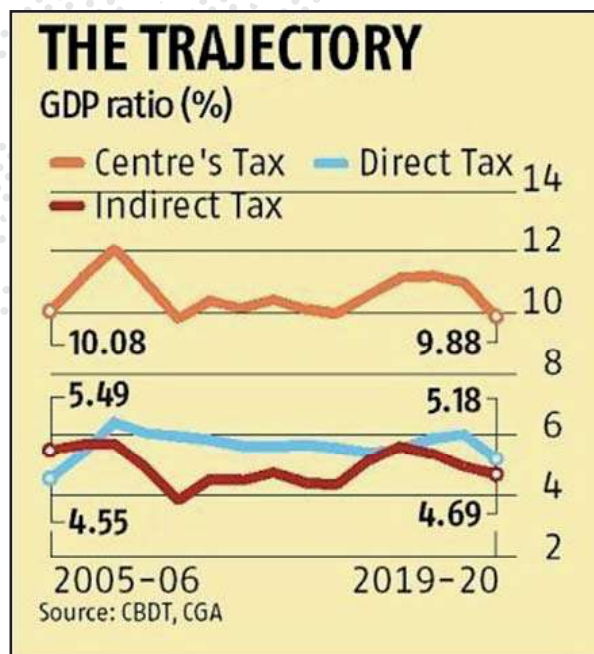
- The programme involves faceless assessment, faceless appeal and a tax payer charter. It seeks to improve tax payer experience and ease of doing business.
- The Faceless Assessment Scheme aims to eliminate the human interface between the taxpayer and the income tax department.
- Under the Faceless Appeals system introduced by the government, appeals will be randomly allotted to any officer across the country and the identity of the officer deciding the appeal will remain unknown. Further, decisions will be team-based.
- The aim of the tax payer *Charter* is that of nurturing the relationship between the Revenue departments and the community that they serve, a relationship of mutual trust and respect.
- The drive to honour honest tax payers comes after a series of steps in recent months aimed at making the administration more accountable for its dealings with tax payers, reduce tax litigation and for making compliance easy.
- The emphasis is on making every rule-law, policy people-centric and public friendly
- The initiative reflects India's vision towards 'minimum government, maximum governance'.

Issues of tax evasion in India

- Even though India's income tax was instituted in 1922 by the British, our tax history explains the high degree of tax delinquency today.
- The government's deficiency in governmental expenditures is most notably attributed to wide spread tax evasion.
- Relative to other developing countries, the fact that India's income tax comprises 5% of its GDP is due to the fact nearly 1-3% of the population is exposed to income taxation. According income tax department, out of population of 130 crore people, only 1.5 crore pay income tax.
- Although India has improved its tax-to-GDP ratio in the last few years, it is still far lower than the average OECD ratio which is 34 per cent. India's tax-to-GDP ratio is lower than some of its peers in the developing world. Developed countries tend

to have higher tax-to-GDP ratio.

- India faces more difficulties in proliferating its income tax than a country like China, who subjects 20% of its population, because there is an emphatically low amount of formal wage earners.
- The exorbitant levels of tax evasion has inspired the creation of a black money parallel economy. Black money inherently causes inflation and hinders the government's ability to bring down the prices of commodities.
- In fact, the large volume of black money actually diverts governmental resources from national welfare and encourages the continuation of illegal activity.



Initiative taken by the government to improve tax collection

- The focus of the tax reforms in recent times has been on reduction in tax rates and on simplification of direct tax laws.
- Several initiatives have been taken by the CBDT for bringing in efficiency and transparency in the functioning of the IT Department. This includes bringing more transparency in official communication through the newly introduced Document Identification Number (DIN) wherein every communication of the Department would

carry a computer generated unique document identification number.

- Similarly, to increase the ease of compliance for taxpayers, IT Department has moved forward with prefilling of income tax returns to make compliance more convenient for individual taxpayers. Compliance norms for startups have also been simplified.
- The government had in 2019 offered businesses the option of a lower corporate tax rate to those not availing of any incentives and to new manufacturers.
- Also steps have been taken to rationalize personal income tax rates to make the slabs more progressive so that tax payers' transition from lower slab to higher one is more smooth.
- The government has also created Voluntary Disclosure of Income Schemes, whereby black income and assets can actually be declared without penalty or prosecution.
- The Corporate Tax rates were reduced from 30 percent to 22 percent and for new manufacturing units the rates were reduced to 15 percent. Dividend distribution Tax was also abolished.
- With a view to provide for resolution of pending tax disputes the IT Department also brought out the Direct Tax "Vivad se Vishwas Act, 2020" under which declarations for settling disputes are being filed currently.
- IT Department has also made efforts to ease compliances for taxpayers during the Covid times by extending statutory timeliness for filing returns as also releasing refunds expeditiously to increase liquidity in the hands of taxpayers.

Suggestions to improve tax collections

- There is a reasonable opportunity to raise revenue since our tax-to-GDP ratio is about 16%. Following steps can be taken in this direction:
- **Cap on tax-free long-term capital gains:** Long-term capital gains on listed securities were exempt from income-tax to increase participation by retail investors in capital markets. But ultra high

networth individuals (HNIs) have benefited from tax-free capital gains more than retail investors. A reasonable cap on exemption for capital gains will protect retail investors' interest and at the same time increase tax collection.

- **Link transactions to filed taxes:** 1.2 million transactions couldn't be linked to tax returns filed. Significant tax collection can happen if this information is used to detect undisclosed income. A sustained campaign to highlight the ability of tax department to detect undisclosed income will improve tax compliance.
- **Curtailling unaccounted money:** Real estate provides a major avenue for deployment of cash/parallel economy proceeds. Trading hubs, party contractors, big-ticket purchases and cash couriers are all worth tracking for bringing the parallel economy under the tax net and increasing tax collection.
- **Increase service tax:** While service tax net has been widened, there may be more opportunities, especially in the unorganized sector. A nominal tax on a presumptive basis may incentivize the unorganised sector to come under the service tax net.
- **Need for effective dispute settlement mechanism:** Huge tax arrears suggest the need for launching an effective dispute settlement mechanism. A consent system can save considerable time and effort and convert arrears to actual tax collection.

◎ CONCLUSION:

To foster economic growth and development India needs sustainable sources of funding for social programs and public investments. Programs providing health, education, infrastructure and other services are important to achieve the common goal of a prosperous, functional and orderly society. And they require that government raise revenues. While the recent initiatives taken by the government are significant step towards raising the revenue, more such efforts are needed in this direction.

KERALA STARES AT FLOOD HAVOC FOR THIRD STRAIGHT YEAR

CONTEXT

Incessant rain and strong winds swept across several parts of Kerala amid predictions of heavy or very heavy rain in many others, as the coastal state faces its third consecutive year of floods.

◎ BACKGROUND

- Due to the incessant rains in the State, all the dams have been filled with water. This is the third consecutive year when Kerala is facing a flood disaster.
- On the west, the coastal areas are being battered by a rough sea. On the east, along the fragile high ranges, sustained heavy rainfall in the last two days has set off innumerable high- and low-intensity landslides.
- And the midlands have been flooded by the rivers that have been bloated far beyond their banks by both the intense spells and the high-velocity waters dumped on them by the landslides.
- The state was bound to receive heavy rainfall due to the low pressure formed in the Bay of Bengal.
- But even the experts could not forecast this much rainfall during a short period.
- The extremely heavy rainfall in the Western Ghats led to floods and triggered landslides.

◎ ANALYSIS

The worsening floods in India

- India's summer monsoon has always been variable and has often precipitated floods, especially in the basins of the great Himalayan rivers.
- But a combination of global warming, unplanned urban growth, and environmental degradation is increasing flood risk in India.
- The extreme precipitation events are on the rise in large parts of India, especially multi-day deluges that lead to large-scale floods.
- Warmer temperatures are also speeding up glacier melt in the Himalayas, which is projected to increase flow rates in the Ganges and Brahmaputra Rivers.
- As importantly, destruction of mountains and hills, as well as development on floodplains and marshes, are exacerbating risk, as seen in historic floods in the southern state of Kerala.
- Those floods were caused by extreme rainfall and mismanagement of dam reservoirs, but mining and construction in the Western Ghats, a major hill range, contributed to damaging landslides.

Floods

- A flood happens when water overflows or soaks land that is normally dry. Flooding is caused by the inadequate capacity within the banks of the rivers to contain the high flows brought down from the upper catchments due to heavy rainfall.
- Floods during monsoons are as common in the centre of India as much as they are in coastal states.
- Uttar Pradesh and Bihar are prone to bad monsoons and saw the worst of it in the catastrophic floods last year that affected an estimated 40 million people.
- Flooding is accentuated by erosion and silting of the river beds, resulting in a reduction of the carrying capacity of river channels
 - earthquakes and landslides leading to changes in river courses and obstructions to flow
 - synchronization of floods in the main and tributary rivers
 - retardation due to tidal effects
 - encroachment of floodplains
 - haphazard and unplanned growth of urban areas.
- Some parts of the country, mainly coastal areas of Andhra Pradesh, Orissa, Tamil Nadu and West Bengal, experience cyclones, which are often accompanied by heavy rainfall leading to flooding.

A look at numbers

- The number of floods in India rose to 90 in the 10-year period from 2006 to 2015, up from 67 in the 10 years between 1996 to 2005, according to the **UN Office for Disaster Risk Reduction**.
- Globally, floods made up 47 percent of all climate-related disasters from 2006 to 2015, up from 40 percent in the 1996-2005 period, says the agency's 2015 report.

- Overall flood mortality fell in those two decades, except in a handful of countries, including India, where death tolls continued to rise, from 13,660 from 1996 to 2005, to 15,860 from 2006 to 2015.
- A 2017 global analysis by the **World Resources Institute** said that India has the most GDP exposed to river flooding (\$14.3 billion), a number that could rise 10-fold by 2030 as the economy continues to grow.

The special case of Kerala

- Kerala is a state on the southwestern, Malabar Coast of India. Kerala, which lies in the tropic region, is mostly subject to the type of humid tropical wet climate experienced by most of Earth's rainforests.
- The Indian state of Kerala receives some of India's highest rainfall during the monsoon season.
- Kerala is ecologically sensitive owing to the geography and topography of the region.
- Kerala has a total 5,924 quarries, an average of six quarries per panchayat, of which 3,332 are in the ecologically sensitive zones identified by Gadgil.
- In sum, 56% of the quarries are on fragile spots in the Western Ghats, making them prone to landslides.
- Practically, the entire state is drainage medium for run-off from the Western Ghats towards the Arabian Sea.
- As a result, the state has a dense network of rivers linking the hills to the sea.
- While rain is abundant across the state, the coastal regions, especially in northern Kerala, rather than the Western Ghats that receive the bulk of the rainfall during the monsoons.
- Because of this, Kerala's rivers are spared the flooding risks associated with rivers swollen with heavy volumes of run-off.

Why Kerala is prone to floods?

- **Massive construction:** Massive constructions have destroyed the slope of the hills and changed the course of rivers (Panamaram, in Wayanad). All of its tributaries are reclaimed now, and the water has nowhere to go.
- **Soil-piping:** Soil-piping is a major cause for the landslides witnessed in these places and the high ranges of Kerala will likely be worst hit if this continues.
 - Also known as 'tunnel erosion', soil piping is the subsurface erosion of soil caused by percolating

waters to produce pipe-like conduits below the ground, especially in non-lithified earth materials.

- **Fragmentation of forests:** The fragmentation of forests is also reflected in human-animal conflict, that has been on a rise.
- **Unrestricted mining:** Unrestricted mining operations in both places have contributed to environmental degradation.
- **Rise in temperature:** The district has also witnessed a change in temperature of 2-3 degrees, that otherwise happens over centuries, over a short span of years.

How the floods brought to light the existence of illegal stone quarries?

- In 2011, the **Gadgil Committee** put together a bunch of **recommendations** to the central government about **ecologically-fragile regions** in the Western Ghats.
- They found the highest number of vulnerable zones in Kerala and cited several reasons for them being classified as such.
 - Some reasons for its vulnerability were geographical, a challenge posed by its position amidst the Ghats.
- Many other causes – quarrying, mining, illegal repurposing of forests, and high-rise building constructions – were man-made, controllable factors that the state chose to **brush aside**.
- The flooding has definitely brought to light the existence of illegal stone quarries or a large number of unauthorised constructions on river beds.
- In this sense, it is definitely a man-made calamity where intense rainfall and human intervention have made it a serious disaster.
- The quarrying Prof Gadgil refers to, along with deforestation in the region, has intensified the horrific landslides the state is witnessing.

Is it a result of poor planning of disaster management authority?

- One of the most severely affected areas is **Ernakulam** in Kochi, along the **Periyar river**, into which excess water from the **Idamalayar dam** was drained.
- It is claimed that authorities waited till the water level in the **Idamalayar reservoir** reached its capacity of 169 feet, and had it been opened sooner, would likely have spared the massive evacuation efforts in the vicinity.
- **The authorities made a mistake** by opening all four gates of the dam at once, flooding the underlying regions at a much faster rate than expected.

- It is clearly the result of poor planning by the disaster management authority.

What about weather predictions?

- Time and again, data and statistics on weather events have been used to fuel many arguments linking **freak weather** events, like the floods in Kerala, and climate change.
- Leading experts are wary about drawing the same conclusions; they state that weather data is complex, and particularly so in a tropical country like India.
- A climate **study** spanning 1950-2015 looks at extreme rain events in central India, which the researchers say happens three times as frequently in recent times as it did in 1950.
- These have also intensified, because **westerly winds** that move over an increasingly-warmer Arabian Sea carry surges in moisture with them as they move into the subcontinent during monsoons.
- Predicting such events can be done two-to-three weeks ahead, at best.

What's adding to the challenges?

- Unplanned urbanization is already increasing flooding. India added 90 million people to its urban population between 2001 and 2011, and will add 416 million more by 2050.
- In addition, sprawling Indian cities have been building on wetlands and expanding into floodplains. And urbanization itself may be affecting rainfall patterns.
- Urban heat islands could be intensifying thunderstorms over Mumbai.

What can India do to reduce its flood risk?

- Eco-system flood management approach:** New ecosystem-based flood management approaches being promoted by international agencies have yet

to catch on in India. That includes planning cities with ponds and permeable surfaces, restoring wetlands and forests, and regulating development in floodplains and hills.

- Strict policies:** The future remains bleak for Kerala with the villages adjoining the Western Ghats being located at a slope of +30 degree angle, no scientific mining policies in place and massive mining operations going on in the high ranges. The state needs strict policies and rules in place.
- Eco-friendly living:** The state needs to embrace eco-friendly living and ensure minimum exploitation of our land.
- Better management:** Better preparedness and quick response is the need of the hour. Dam management needs to be more scientific during monsoons
- Community involvement:** A strong bond within the community is essential in emergency situations
- Protection of wetlands:** There is need to protect wetlands and water channels to avoid floods
- Ban on mining:** Mining operations should be banned in ecologically fragile areas.
- Responsible construction model:** There's a need to develop responsible house construction modules.

CONCLUSION

Tropical countries like India evolve differently than countries in the West, which have larger land area and time periods over which to observe and predict a given weather event. Average temperatures throughout Southeast Asia were seen rising, and rainfall growing more erratic, particularly in India. These weather changes will continue to shadow us over coming decades. States such as Kerala are at a substantial risk of flood-related damage in the century to follow. The time for change is now but the question is, will Kerala learn from its mistakes?

INDIA ANNOUNCES \$500 MILLION FOR MALDIVES

CONTEXT

Even as the Covid-19 crisis strained its own economy, India has loosened its purse strings and pledged a new financial package of \$ 500 million to support an infrastructure project in the Maldives – ostensibly to counter China's attempts to spread its geo-strategic influence over the Indian Ocean nation.

◎ ABOUT:

- The amount announced to help Maldives connect the capital Male to three nearby islands, stepping up New Delhi's diplomatic efforts in a region China has also been focusing recently.
- The Greater Malé Connectivity Project (GMCP) will get a financial package consisting of a grant of \$ 100 million and a new Line of Credit of \$ 400 million from New Delhi.
- Besides this mega project, Delhi also announced the launch of cargo ferry services and air travel bubble between the two nations.
- Given the financial challenges faced by Maldives due to the Covid-19 situation and India's commitment to assist Maldives in its economic recovery, Delhi also extended in-principle urgent financial assistance to Male by way of a soft loan arrangement.
- This is the first financial assistance announced by GoI to any country to deal with Covid-19 pandemic. This assistance will help the Maldives government tide over the financial crisis till their main revenue earners like tourism and fisheries exports return to normal.
- These announcements were made by Foreign Minister S Jaishankar during a virtual meet with his Maldivian counterpart Abdulla Shahid.

Other development in relations

- The bilateral engagement confronted numerous challenges after the first democratically elected government of the Maldives led by Mohamed Nasheed collapsed in 2012. Since then the country's political instability has challenged overall security of the Indian Ocean by increasing radicalisation—over 200 Maldivians reportedly joined the Islamic State—and by the granting of non-transparent permissions for foreign investment.
- **Relations after Yameen government:** Bilateral ties improved after the September 2018 elections ended the Abdulla Yameen government. Ibrahim Mohammed Solih, leader of the Maldives Democratic Party (MDP), was elected President with the support of a coalition.
- The change of government in the Maldives allowed both countries to positively redefine

bilateral relationships, as indicated by high level visits. Modi visited the Maldives in September 2018 while Solih made a state visit to India in December 2018. Statements made during the visits underscore the importance of enhancing bilateral relations in trade, energy, security, connectivity, socio-economic developments and cooperation in regional and multilateral forums.

- **Financial assistance:** US\$4 billion of financial assistance was announced by India for socio-economic development programs in Maldives in an attempt to improve relations. India also announced a US\$800 million line of credit to finance infrastructure projects during the visit of External Affairs Minister Sushma Swaraj to the Maldives in March 2019. India's aid to the Maldives increased from Rs 125 crore (US\$18.1 million) in 2018–19 budget to Rs 575 crore (US\$83.3 million) in 2019–20.
- **Visa facilitation agreement:** came into force in March 2019 to boost people to people contacts. Other important agreements include implementation of high-impact community development projects through local bodies and collaboration in energy efficiency, renewable energy, information and communications technology, and electronics.
- **India first policy:** Solih is speaking of an 'India first' policy while India is promoting a 'neighbourhood first' policy. While these appear mutually agreeable, the challenge lies in implementing them, understanding each other's security and strategic concerns and providing room for dialogue to address those concerns.
- India's assistance in setting up a Coastal Surveillance Radar System and participating in the second Defence Cooperation Dialogue in January 2019 aims at cooperation on maritime security and counter terrorism.
- The Trilateral Maritime Agreement between India, Sri Lanka and the Maldives is in place and trilateral military exercises are held on a regular basis.
- But to achieve greater results, both countries need to enhance regional cooperation by using common platforms such as the Indian Ocean RIM Association and the Indian Ocean Naval Symposium. Collaboration through the South

Asian Association for Regional Cooperation is stalled due to India–Pakistan tensions.

Significance of Maldives for India

- Strategically located in the Indian Ocean, Maldives archipelago comprising 1,200 coral islands lies next to key shipping lanes which ensure uninterrupted energy supplies to countries like China, Japan and India.
- Since China started to send naval ships to Indian Ocean roughly 10 years ago — and right up to Gulf of Aden in the name of antipiracy operations — Maldives' significance has steadily grown and now it's at the heart of international geopolitics.
- As the pre-eminent South Asian power and a 'net security provider' in the Indian Ocean region, India needs to cooperate with Maldives in security and defence sectors.
- Maldives is also a member of SAARC. It is important for India to have Maldives on board to maintain its leadership in the region. Maldives was the only SAARC country which seemed reluctant to follow India's call for boycott of SAARC summit in Pakistan after the Uri attack.
- Under Yameen, radicalisation grew rapidly and it was often said that archipelago accounted for one of the highest numbers of foreign fighters in Syria in terms of per capita. India can ill-afford a neighbour which fails to check religious radicalisation.
- India and Maldives share ethnic, linguistic, cultural, religious and commercial links. India was among the first to recognise Maldives after its independence in 1965 and later established its mission at Malé in 1972.
- There are 25,000 Indian nationals living in Maldives (second largest expatriate community). Indian tourists also account for close to 6% of tourists Maldives receives every year.
- India is also a preferred destination for Maldivians for education, medical treatment, recreation and

business. According to MEA, more and more Maldivians are seeking long term visa for pursuing higher studies/medical treatment in India.

China and India exerting influence

- The Maldives' reliance on China to develop more than US\$2.5 billion in infrastructure projects and the resulting accumulation of foreign debt— 40 per cent of the country's GDP of US\$4.866 billion in 2017— is a concern for India.
- The Maldives supports the Belt and Road Initiative (BRI) and its debt payment to China alone is close to US\$3.4 billion. India is also concerned about any possible future use of civilian facilities for military purposes by China.
- The popular tourist destination has become a focal point for the world's two most populous nations, particularly in the wake of China's Belt and Road Initiative aimed at improving trade and transport links.
- India and the West accused China of saddling countries, such as the Maldives, with unsustainable debts while tightening its grip in the region.
- New Delhi has sought to regain influence in the Maldives since President Ibrahim Solih assumed power after defeating pro-China strongman Yameen in nationwide elections two years ago.
- Yameen was subsequently convicted of money laundering and sentenced to five years in prison, with his jail-term beginning in February of this year. He was found guilty of awarding construction contracts to Chinese companies at inflated prices.

◎ CONCLUSION:

India–Maldives relations under Maldivian President Ibrahim Mohammed Solih started well. But sustaining the positive momentum will require hard work given complicated domestic politics, external relations and strategic interests.

30 YEARS SINCE MANDAL COMMISSION RECOMMENDATIONS

CONTEXT

On this day, 30 years ago – 7 August 1990 – the VP Singh government accepted the Mandal Commission's recommendations and announced that it would implement the reservation scheme – under which 27 percent jobs would be given to members of Other Backward Classes.

Let's analyse and look back through the decades to see how the recommendations of the Mandal Commission or the second backward class communication were received and the current status of reservation of OBCs in the country.

◎ BACKGROUND

- Thirty years ago, on 7 August 1990, Vishwanath Pratap Singh, the prime minister at the time, announced that Other Backward Classes (OBCs) would get 27 per cent reservation in jobs in central government services and public sector units.
- The announcement was made before both Houses of Parliament.
- The decision was based on a report submitted on 31 December 1980 that recommended reservations for OBCs not just in government jobs but also central education institutions.
- The recommendation was made by the **Mandal Commission**, which was set up in 1979 under the **Morarji Desai government** and chaired by **B.P. Mandal**.

- Today, reservation is provided in central government posts and services to-
 - Scheduled Castes- 15%
 - Scheduled Tribes- 7.5%
 - Other Backward Classes- 27%
 - Economically Weaker Sections- 10%
- The Government recently introduced EWS Reservation. 10% quota is provided for the Economically Weaker Sections (EWS) among General Category candidates in government jobs and educational institutions.
- This is done by adding clauses for the same in the Indian Constitution (103rd Constitution Amendment Act, 2019).

Quick history of 'Reservation' in India

- The history of reservation for the backward castes goes back to 1902 when **Shahu Maharaj**, the ruler of the princely state of Kolhapur, reserved 50% jobs for backward castes (all communities except forward groups such as Brahmins, Prabhus, Shenvis and Parsis).
- When India's Constitution came into force in 1950, the question of Scheduled Castes and Scheduled Tribes was already settled.
- But what is meant by backward classes and who should be included in this category were questions that remained mired in controversy for decades.
- The Jawaharlal Nehru government set up a backward classes commission in 1953, which drew up a list of 2,399 communities listing them as backward.
- But the government did not act on this report.

◎ ANALYSIS

What happened back then?

- In 1979, it was the Morarji Desai government which set up the Mandal Commission to identify socially or educationally backward classes to address caste discrimination.
- It was chaired by B.P. Mandal, who was once the Bihar chief minister.
- The Commission recommended that members of OBCs be given 27 per cent reservations for jobs under the Central government and public sector undertakings.
- This would take the total number of reservations for Scheduled Castes and Scheduled Tribes to 49 per cent.
- The recommendation for OBC reservations in central government institutions was finally implemented in 1992 while the education quota came into force in 2006.

First Backward Class Commission

- In January 1953, the government had set up the First Backward Class Commission under the chairman of social reformer Kaka Kalelkar.
- The commission submitted its report in March 1955, listing 2,399 backward castes or communities, with 837 of them classified as 'most backwards'.
- The report was never implemented.

Major recommendations of the Mandal Commission

- Using 11 indicators – social, educational and economic – the commission identified 3,743 different castes and communities as members of Other Backward Classes.
- The OBC Category, it estimated, comprised 52 percent of the total population.
- Among its key recommendations were a 27 percent reservation in government jobs, schools and colleges – a quota also applicable to promotions at all levels.
- Meanwhile, the reserved quota that remained vacant was to be carried forward for a period of three years and de-reserved thereafter.
- Many of the OBCs mentioned in the list were the 'occupation' castes – Dhobi, Lohar, Teli, etc. The OBC status also varied from region to region.
- While the Banias were on the OBC list in Bihar, they were left off the list in other states; Similarly, Jats were marked OBC only in Rajasthan.
- The Mandal Commission had also recommended land redistribution and change in relations of production.

What turned into anti-Mandal?

- Soon after announcement of the recommendations, protests rocked the country.
- Many students took to the streets, holding dharnas and blocking roads. These evolved into anti-Mandal protests, which took an ugly turn in September 1990 when Delhi University student from Deshbandhu College, Rajeev Goswami, self-immolated.
- Goswami became the face of the anti-Mandal movement at that point.

Criticism of the Report

- **Outdated base year:** One of the biggest criticisms of the Mandal Commission report was that it was based on a 1931 census – which was carried out when India was still under British rule.

- **Ignored socio-political transformation:** The report was also criticised for failing to take into account the socio-political transformation that had taken place among many of these communities.
- **Opportunistic:** VP Singh was accused of indulging in opportunism and was criticised for picking only reservation – the most populist of all measures in the Mandal commission report – over other important recommendations, like the one aimed at altering the land-tenurial system, among other economic and educational reforms.

Mandal Challenged in Supreme Court

- The Mandal Commission report also battled several legal cases.
- The Court, in its judgment in the case of **Indira Sawhney vs Union of India**, delivered in 1992, upheld the 27 percent reservation for OBCs subject to the exclusion of **socially-advanced persons/sections (creamy layer)** from amongst the OBCs and directed the government to evolve a criteria for the identification of this creamy layer.
- A committee was appointed to address the issue.
 - The recommendations were accepted and circulated among all ministries/ departments of the Central and state governments in September 1993, bringing reservations for the OBC community into force.

When the OBC 'creamy layer' came into being?

- To ensure that benefits of the recommendations of the Mandal Commission percolated down to the most backward communities, the creamy layer criteria was invoked in the popularly known Supreme Court ruling called the 'Indira Sawhney Judgment'.
- It was delivered by the nine-judge bench on the Mandal Commission report in November 1992.
 - Under the present rules, a household with an **annual income of Rs 8 lakh** or above would be classified as belonging to the 'creamy layer' among OBCs and therefore, would not be eligible for reservations.

What are the impacts of the recommendations today?

- After year, there pertains gross inequity in how the benefits of the reservations are enjoyed by different communities within the OBC.

- **Unfilled vacancies:** A parliamentary panel on the Welfare of OBCs had in its February 2019 report noted that in spite of four revisions of the income criteria since 1997, the 27 per cent vacancies reserved in favour of OBCs were not being filled up.
- **Poor occupancy level in central govt ministries:** The committee said the data received from 78 ministries and departments regarding representation of OBCs in the posts and services of the central government as on 1 March 2016 reflected poor OBC occupancy levels in central government ministries.
- **Maximum number are in Group C jobs:** According to this government data, of the 32.58 lakh government employees (which includes Group A, B, C), the number of those from OBCs are 7 lakh — 21 per cent of the quota as against 27 per cent. The maximum number of OBCs — 6.4 lakh or 22.65 per cent — are employed in Group C, which comprises mainly the *safai karamcharis*, i.e., the sanitation department staff.

Rohini Commission

- To address these anomalies, the government constituted a four-member commission headed by retired Delhi High Court Chief Justice G. Rohini in 2017. The committee's mandate was to look into the issue of sub categorisation within OBCs.

- Their mandate also included looking into how the 27 per cent reservation for OBCs in jobs and education was being implemented and if all categories of OBCs were benefitting from it.
- The Commission found that out of almost 6,000 castes and communities in the OBCs, only 40 such communities had gotten 50 per cent of reservation benefits for admission in central educational institutions and recruitment to the civil services.
- The panel further found that close to 20 per cent of OBC communities did not get a quota benefit from 2014 to 2018.
- The commission's tenure was recently extended until January 2021 to complete its study.

◎ CONCLUSION

The last few lost decades did immense harm to OBCs. They remain severely under-represented in government jobs and the corridors of power, and, after the promising start of the 1990s, their political representation, too, has weakened. On the 30th anniversary of the Mandal movement, it is hoped that it will give a positive fillip to the deteriorating situation.

DAUGHTER'S EQUAL RIGHT TO ANCESTRAL PROPERTY: SC

CONTEXT

In a significant development, the Supreme Court expanded on a Hindu woman's right to be a joint legal heir and inherit ancestral property on terms equal to male heirs.

◎ BACKGROUND

- While the **Hindu Succession (Amendment) Act, 2005** granted equal rights to women, questions were raised in multiple cases on whether the law applied retrospectively, and if the rights of women depended on the living status of the father through whom they would inherit.
- Different benches of the Supreme Court had taken conflicting views on the issue. Different High Courts had also followed different views of the top court as binding precedents.
 - ▶ In **Prakash v Phulwati (2015)**, a two-judge Bench headed by Justice A K Goel held that the benefit of the 2005 amendment could be granted only to "living daughters of living coparceners" as on September 9, 2005 (the date when the amendment came into force).
 - ▶ In February 2018, contrary to the 2015 ruling, a two-judge Bench headed by Justice A K Sikri held that the share of a father who died in 2001 will also pass to his daughters as coparceners during the partition of the property as per the 2005 law.
 - ▶ Then in April that year, yet another two-judge bench, headed by Justice R K Agrawal, reiterated the position taken in 2015.
- These conflicting views by Benches of equal strength led to a reference to a three-judge Bench in the current case.
- The present ruling overrules the verdicts from 2015 and April 2018. It settles the law and expands on the intention of the 2005 legislation "to remove the discrimination as contained in section 6 of the Hindu Succession Act, 1956 by giving equal rights to daughters in the Hindu Mitakshara coparcenary property as the sons have".

◎ ANALYSIS

The Hindu Succession (Amendment) Act, 2005

- The Mitakshara school of Hindu law codified as the **Hindu Succession Act, 1956** governed succession and inheritance of property but only recognised males as legal heirs.
- **Applicability:** The law applied to everyone who is not a Muslim, Christian, Parsi or Jew by religion.

Buddhists, Sikhs, Jains and followers of Arya Samaj, Brahmo Samaj are also considered Hindus for the purposes of this law.

- In a Hindu Undivided Family, several legal heirs through generations can exist jointly. Traditionally, only male descendants of a common ancestor along with their mothers, wives and unmarried daughters are considered a joint Hindu family. The legal heirs hold the family property jointly.
- Women were recognised as coparceners or joint legal heirs for partition arising from 2005.
- Section 6 of the Act was amended that year to make a daughter of a coparcener also a coparcener by birth "in her own right in the same manner as the son".
- The law also gave the daughter the same rights and liabilities "in the coparcenary property as she would have had if she had been a son".
- The law applies to ancestral property and to intestate succession in personal property — where succession happens as per law and not through a will.
- The 174th Law Commission Report had also recommended this reform in Hindu succession law.
- Even before the 2005 amendment, Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu had made this change in the law, and Kerala had abolished the Hindu Joint Family System in 1975.

Key-highlights of the ruling

The Court has held:

- The provisions contained in substituted Section 6 of the Hindu Succession Act, 1956 confer status of coparcener on the daughter born before or after amendment in the same manner as son with same rights and liabilities.
- The rights can be claimed by the daughter born earlier with effect from 9.9.2005 with savings as provided in Section 6(1) as to the disposition or alienation, partition or testamentary disposition which had taken place before 20th day of December, 2004.
- Since the right in coparcenary is by birth, it is not necessary that father coparcener should be living as on 9.9.2005.

The traditional way

- Traditionally, the Hindu law allows only males to be legal heirs of ancestral property and the law applies to everyone who is not a Muslim, Parsi, Jew or a Christian.
- The law includes Sikhs, members of Brahmo Samaj, Arya Samaj, Jains into the ambit of the scope of applicability of the law.
- Women only came to be recognised as joint legal heirs for partition of property from 2005 onwards.

What about liabilities?

- Daughters as coparceners include married daughters. Coparcenary right is an undefined liability and any liability of father including family debt will be extended to daughters as well.

What is coparcenary?

- A joint Hindu family means all people lineally descending from a common ancestor, including wives and unmarried daughters.
- But a Hindu coparcenary is a much narrower group. It consists of the 'propositus' (the person from whom a line of descent is traced) and three of his descendants.
- Coparcenary property is the one which is inherited by a Hindu man from his father, grandfather, or great grandfather.
 - ▶ The property in coparcenary is held as joint owners, and only a coparcener has a right to demand a partition of this property.
- Before 2005, the coparceners included only sons, grandsons, and great grandsons who are holders of a joint property.

- But the 2005 amendment to Section 6 of the Hindu Succession Act essentially gave equal rights to daughters in ancestral property.
- So the amendment allowed daughters to be recognised as coparceners by birth in the family, similar to sons.

Significance of the Judgement

- **Women empowerment:** It will help in empowering Hindu women and expanding their right to familial/ ancestral property.
- **Equal terms:** The decision is extremely important because it will now give Hindu women the rights to become legal heirs and inherent their ancestral property on equal terms with their male counterparts.
- **Reassertion of constitutional value of equality:** The judgment is a reassertion of the constitutional value of equality to women in personal law without any preconditions. The judgment factors all aspects.

CONCLUSION

Now, daughters from Hindu families will be given equal rights in terms of ancestral property as their male counterparts. The Supreme Court has also appealed to the High Courts to dispose all the cases in this context which have been lying with them for months within the next six months. The government has welcomed the expansion of the reading of the law and the allowing of equal rights to Hindu women in terms of inhering ancestral property.

FINALLY NSCN PUTS 'THE 2015 FRAMEWORK AGREEMENT' IN PUBLIC DOMAIN

CONTEXT

The NSCN-IM, one of the largest Naga groups, signed a framework agreement on August 3, 2015 to end the decades old issue.

◎ BACKGROUND

- The Naga quest for independence is one of the longest-running struggles in the Indian subcontinent.
- Despite numerous attempts made in the past towards resolving the conflict, it continues to remain elusive on account of various fault lines.
- The signing of a 'Framework Agreement' between the National Socialist Council of Nagalim-Issak and Muivah (NSCN-IM) and the Government of India in August 2015 was one such attempt.
- However, the views of various stakeholders remain fragmented as the details of the agreement have not been disclosed in the public domain.
- Though peace talks with NSCN-IM and other pro-talks rebel outfits (Naga National Political Groups-NNPGs) concluded in October, 2019 a formal deal to end the decades old Naga political problem is still awaited.

- This region was ruled by Myanmar (Burma) from 1819-1826, when the British began annexing its hill areas.
- Nagaland had attained statehood in 1963. The moderates signed the Shillong Accord in 1975, seen as the first peace agreement, but the hardliners had rejected it outright and continued with the armed movement for Naga sovereignty.

Role of NSCN-IM

- On November 11, 1975, the **Shillong Accord** was signed between the government and a section of the Naga National Council (NNC), under which this NNC faction and the underground Naga Federal Government (NFG) laid down arms.
- A 140-strong group led by **Thuingaleng Muivah** refused to accept the Accord and, in 1980, formed the **National Socialist Council of Nagaland (NSCN)**.
- With Muivah were his comrades Isak Chishi Swu and S S Khaplang.
- In 1988, the NSCN split into two groups, led by Isak and Muivah, and Khaplang.
- After NNC leader Angami Zapu Phizo died in London in 1991, the NSCN-IM came to be seen as the predominant Naga rebel outfit.

How did the peace efforts start?

- The efforts for peace started soon after the NNC declared Nagaland an independent state on August 14, 1947.
- It took until August 1997, however, for the first ceasefire agreement to be signed between the government and the NSCN-IM.
- The security situation in Nagaland and neighbouring states, however, remained grim, and the ceasefire was violated by both the NSCN-IM and NSCN-K.
- The NSCN-K unilaterally broke the agreement in March 2015, and was subsequently declared an unlawful association under The Unlawful Activities (Prevention) Act, 1967.

◎ ANALYSIS

Who are Nagas?

- The Nagas are a tribal **Indo-Mongoloid people** who live in the Northeast region of India, the Himalayas, and Burma (Myanmar).
- These hill people are estimated to number about 2.5 million (1.8 million in Nagaland, 0.6 million in Manipur and 0.1 9million in Arunachal states) and living in the remote and mountainous country between the Indian state of Assam and Burma.
- There are also Naga groups in Burma. Nagas traditionally are tribally organized, with a strong warrior tradition.

Nagaland

- Nagaland is the strategic Eastern Frontier State of India. This mountainous region is the home of a multitude of tribal population of mongoloid race.

- The NSCN-IM dropped its demand of sovereignty after several rounds of negotiations with the government.

The key-players

- The three main players involved in the ethnic conflict of Nagaland are:
 - The Ethnic Nagas
 - The Government of India
 - The Government of Myanmar
- The Nagas were historically represented first by the Naga National Council (NNC), which in the late 50s took up arms and formed an underground Naga army.
- The NNC split in 1975, the breakaway faction being the NSCN, which split further in later years, most prominently into the NSCN(IM) and NSCN (Khaplang) in 1988.

Current demands of Naga people

- Naga people mainly have three demands:
 - Naga Yezabo (Naga Constitution)
 - Naga national flag
 - Greater Nagalim

Greater Nagalim'

- In the NSCN's conception, "Greater Nagalim" consisted of Nagaland and "all contiguous Naga-inhabited areas", which included several districts of Assam, Arunachal Pradesh and Manipur, and a part of Myanmar.
- While the area of Nagaland is 16,527 sq km, Greater Nagalim sprawled over 1,20,000 sq km.
- The demand for Nagalim has always agitated Assam, Manipur and Arunachal.

What Does the 'Framework Accord of 2015' Say?

- After the Shillong Accord signed between NNC and Government of India in 1975 where NNC agreed

to give up arms and the Ceasefire agreement between NSCN (IM) and the Centre in 1997, the Modi government signed a framework agreement with the NSCN(IM) On 3 August 2015.

- The move was described as historic and unprecedented and was believed to have opened the doors for further talks.
- The agreement was signed nearly 18 years after the government's ceasefire 1997 deal with Naga armed groups.
- While neither the Centre nor the Naga groups have been forthcoming with details, the framework agreement did accept **special status** for the Nagas.
- There was an understanding on a settlement within the Indian federation, with due regard to the uniqueness of Naga history.

The revealed agreement

- The framework agreement shared as part of a detailed press statement issued by the NSCN-IM said,
- "Both sides have understood each other's respective positions and are cognizant of the universal principle that in a democracy, sovereignty lies with the people.
- Accordingly, the Govt. of India and the NSCN, respecting people's wishes for sharing the sovereign power as defined in the competencies reached an agreement on the 3rd August, 2015 as an honorable solution."
- The agreement stated "sharing the sovereign power" and provide for an "enduring inclusive new relationship of peaceful co-existence of the two entities".

◎ CONCLUSION

For more than 70 years, Nagas have stood unwavering for the Naga cause, undeterred by the mountains of hurdles and suffering keeping the aspirations of Nagas alive. It's high time to resolve the peace talks. Any attempt to expedite the peace process without understanding the Naga sentiments could backfire, and lead to a dangerous situation.

ROLE OF ISRO IN DEVELOPMENT ACTIVITIES

CONTEXT

ISRO is fast enlarging its role into development activities.

ISRO and its continuously expanding role:

- Indian Space Research Organisation is no longer confined mainly to the launching of satellites, but it has been constantly enlarging its role in development activities, thus contributing to Prime Minister's mission of Transforming India.
- In agriculture the ISRO technology is now also being used to carry out crop production forecast for at least eight major crops including wheat, kharif and rabi rice, mustard, jute, cotton, sugarcane, rabi sorghum and rabi pulses.
- In the Railway sector, it was in the recent years that the applications of space technology were realised in guarding unmanned railway crossings, detecting obstructive objects on rail tracks to avoid train accidents and other such activities.
- Satellite imaging is now being utilised for supervising Indian borders and to check foreign infiltrations.
- ISRO and the Department of Space have already overtaken several other countries in their space endeavours and the images procured by missions like Mars Orbiter Mission (MOM) are now being utilised even by premier space centres.

Role of ISRO in rural development

- Village resource centre:** ISRO has embarked upon VRC programme to disseminate the portfolio of services emanating from the space systems as well as other Information Technology (IT) tools, directly down-the-line to the rural communities.
 - With the involvement of stakeholders, VRCs will catalyse rural entrepreneurship; and facilitate e-Governance and other services of social relevance.
 - ISRO is implementing VRC programme in partnership with reputed NGOs, Trusts and other agencies including the Governmental ones.

VRC Services – Portfolio:

- Tele-education:** Focus is on imparting vocational training at local level - aimed at skill development and capacity building to catalyse livelihood support in rural areas; supplementary teaching to rural children; and non-formal and adult education.
- Tele-healthcare:** Thrust is on both preventive and curative healthcare at primary level. The Telemedicine system at VRCs consists of

customised medical software, with certain medical diagnostic instruments. With the help of local doctor/ paramedic, expert medical consultation and counseling are provided to the villagers from specialty hospitals. Healthcare awareness is also a major activity of VRCs.

- Land and Water Resources Management:** Information on land and water resources extracted from satellite images is organised in Geographical Information System (GIS), and provided to the villagers through the VRC. The local farmers, availing the support of the skilled/ trained personnel managing VRCs, utilise this information for better management of their land resources.
- Interactive Advisory Services:** VRCs facilitate interactions between the local people and experts at knowledge centers - Agricultural Universities, Technical Institutions, etc - on a wide range of subjects such as alternative cropping systems, optimisation of agricultural inputs-like seeds, water, fertilizer, insecticides, pesticides, producer oriented marketing opportunities, crop insurance, etc.
- Tele-fishery:** VRCs located at coastal tracts are being provided with near real time information on satellite derived Potential Fishing Zones (PFZ). Information pertaining to inland fisheries, aquaculture, etc., is also provided through VRCs as relevant.
- E-Governance services:** The services include information and guidance to local people on village oriented governmental schemes on agriculture, poverty alleviation, rural employment, social safety nets and other basic entitlements, animal husbandry and livestock related, micro-finance related, etc.
- Weather Services:** Short, medium and long-term weather forecasts, at local level; and agro meteorology advisory services are being enabled.
- Disaster Management Support:** The Disaster Management Support (DMS) Programme of ISRO, provides timely support and services from aero-space systems, both imaging and communications, towards efficient management of disasters in the country.
- Remote sensing applications:** Remote sensing has enabled mapping, studying, monitoring and management of various resources like agriculture, forestry, geology, water, ocean etc.

Role of ISRO in Urban Development

- Various factors such as the rate of population increase, urban sprawl etc. pose the challenge to the urban environment of cities. These change forces policy makers to plan the city in accordance. High resolution satellite data provides a tool by which these changes can be managed and planned for broad expansion of urban environments.
- The increased spatial accuracy and frequent revisit periods allows planners to construct action scenarios and compile accurate database of spatial environments.
- Satellite-based remote sensing holds certain advantages in monitoring the dynamics of urban land use because of the large spatial coverage for mapping applications, more frequent revisit periods and wide availability.
- Government of India has launched Atal Mission for Rejuvenation and Urban Transformation (AMRUT) as a Centrally Sponsored Scheme for Urban Development. ISRO works closely with Ministry of Housing and Urban Affairs (MoHUA) for the "Creation of geo-spatial databases for the formulation of GIS Based Master Plan for AMRUT cities.
- The Indian Space Research Organisation (ISRO) has tied up with the Union Urban Development Ministry for mapping around 500 towns and cities, to make a base plan for better planning and management. The space agency will also map and provide management plans for heritage sites and monuments of national importance.

Challenges, Opportunities, and Strategic Concerns of India's space programme

- As an emerging nation with both vast developmental needs and profound security concerns, India has had to balance many requirements in its rapid advance as a new space power.
- Beijing's activities in recent years have been driven by competition with the United States, so the capabilities it is developing are much more advanced than what are necessary to deter India. Nonetheless, India has to be mindful of Chinese advances.
- Beyond the maritime domain, India has been relying on foreign partners for many other satellite-based communications and data services. For instance, it continues to rely on NASA for deep space communications. India also works a great deal with France to launch its heavy satellites.

- The ISRO's problems are likely to confront it in two forms. The first is simply the fact that it has deficit issues both in technical capacity and manpower placing constraints on its production strength.
- The second challenge confronting ISRO is foreign competition particularly for the launch of small satellites, which is an expanding market. The Elon Musk owned SpaceX Falcon 9 is widely considered a serious potential threat to ISRO's workhorse the Polar Satellite Launch Vehicle (PSLV).
- The PSLV a highly reliable launch vehicle has provided cost effective rideshare launches to small satellite makers. However, with the emergence of a highly reliable Space Launch Vehicle (SLV) in the form Falcon 9, it is in ISRO's best interest, albeit demanding, to divest control of Research and Development (R&D), production and pave the way for commercialization of small satellites by the private sector.
- India does not have an explicit space policy to guide private sector participation. India does have some sector-specific policies, such as for satellite communications and remote sensing data. But these have not been fleshed out well. Industry is unsatisfied, complaining that the policies do not detail how the government will partner with commercial actors.
- There have been increasing calls for allowing private sector firms to manage some of the tried and tested programs, which would allow ISRO to refocus on the larger, more ambitious interplanetary missions, as well as purely research-oriented programs.
- Privatization may also allow India to increase its launch capacity, which is currently at four to five per year and compares poorly with the twenty or so launches China does on average. Increasing the number of launches is partly an infrastructural problem tied to the number of launch facilities in India, but ISRO also has internal constraints on its capacity to deliver.

◎ CONCLUSION:

India's economic progress has made its space program more visible and active as the country aims for greater self-reliance in space technology. In the last half century, there have been significant advances in space applications for development, and ISRO now needs new goals. However, these goals have to be unique and should put ISRO in a lead position – the way its use of space applications for development did.

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DEMAND OF ORGANIC FARMING SHOWING UPWARD TREND

◎ **CONTEXT:** The growth story of organic farming is unfolding with increasing demand not only in India but also globally. In a world battered by the Coronavirus pandemic, the demand is already showing an upward trend and hence this is an opportune moment to be captured for a win-win situation for our farmers, consumers and the environment.

◎ **ABOUT:**

What is Organic Farming?

- Natural farming is not a new concept in India, with farmers having tilled their land without the use of chemicals - largely relying on organic residues, cow dung, composts, etc since time immemorial.
- The primary aim of organic farming is to help soil stay in good health through the use of biological wastes, organic wastes and bio-fertilizers.
- Using organic manures help in sustainable crop production along with a pollution-free environment.
- The philosophy underlying organic farming of integration of the elements – soil, water, microbes, and 'waste' products, forestry, and agriculture is the correct recipe for sustainable use of natural resources, which are coming under severe stress due to ever-increasing requirement of food and feedstock for agri-based industry.
- This method avoids or excludes use of synthetic inputs like pesticides, fertilizers, hormones, etc.

How 'organic' is India's farming?

- India ranks first in the number of organic farmers and ninth in terms of area under organic farming.
- Sikkim became the first state in the world to become fully organic and other States including Tripura and Uttarakhand have set similar targets.
- North East India has traditionally been organic and the consumption of chemicals is far less than the rest of the country.
- Similarly, the tribal and island territories are being nurtured to continue their organic story.

Recent government initiatives to promote organic farming

- With the aim of assisting farmers to adopt organic farming and improve remunerations due to premium prices, two dedicated programs namely **Mission Organic Value Chain Development for North East Region (MOVCD)** and **Paramparagat Krishi Vikas Yojana (PKVY)** were launched in 2015 to encourage chemical-free farming, said Ministry of Agriculture & Farmers Welfare.
- With the simultaneous thrust given by the **Agri-export Policy 2018**, India can emerge as a major player in global organic markets.
 - The major organic exports from India have been flax seeds, sesame, soybean, tea, medicinal plants, rice, and pulses, which were instrumental in driving an increase of nearly 50% in organic exports in 2018-19, touching Rs 5151 crore.

Infusion of digital technology: The organic e-commerce platform www.jaivikkheti.in is being strengthened for directly linking farmers with retail as well as bulk buyers.

CANADA'S MILNE ICE SHELF COLLAPSED

◎ **CONTEXT:** The collapse of Canada's Milne ice shelf — the country's last one — in a corner of the country's Ellesmere Island, has increased fears of the Arctic region being under severe stress due to global warming.

- ◎ **ABOUT:**
- Located on the northwestern coast of Ellesmere Island in Nunavut, the Milne Ice Shelf is about 4,000 years old.
 - The Milne ice shelf lost more than 40 percent of its ice over two days end of July 2020.
 - The shelf's sudden collapse was a close call for scientists studying ice loss in that precarious location, said Arctic ice researcher Derek Mueller.
 - The Milne ice shelf lost more than 40 percent of its ice over two days end of July 2020.
 - This has increased concerns over the rapid melting of ice and the breaking of old ice shelves — large floating pieces of ice that form when a glacier or ice sheet flows into the sea surface.
 - This also meant the last known **epishelf lake** — a water body dammed by the ice shelf and floating on the ocean surface — in the northern hemisphere and on the Milne ice shelf, no longer exists.

What are Ice shelves?

- An ice shelf is a thick, floating slab of ice that forms where a glacier or ice flows down a coastline. Ice shelves are found only in Antarctica, Greenland, and Canada. Thicknesses of floating ice shelves range from 100-1,000 meters.
- Ice shelves are formed by forces of gravity from ice along the shore. Gravity constantly pressures the movement of ice from the land to the shelf. Ice shelves lose mass when chunks break off and slide into the ocean water. Shelves gain mass by snow accumulation on the upper surface.
- Ice shelves can date as back as far as hundreds to thousands of years. They are thicker than long-term sea ice, but not as large as glaciers.
- The world's largest ice shelves are the Ross ice shelf and the Filchner-Ronne ice shelf in Antarctica.

Ellesmere Island

- Canadian ice shelves are attached to Ellesmere Island. The Ayles ice shelf broke up in 2005, the M'Clintock ice shelf broke from 1963 to 1966, and the Markham ice shelf broke up in 2008.
- The only Canadian shelves still existing was the Milne ice shelves.
- Ellesmere Island has been losing ice for more than a century.
- About 100 years ago, a vast, single ice shelf extended along the island's northern coast, spanning more than 3,300 square miles (8,600 square km).

By 2000, the shelf was reduced to around 405 square miles (1,050 square km) divided among six large ice shelves — including Milne Ice Shelf — as well as a few smaller ones, Carleton University representatives said.

Since 2003, there have been five major calving events on the Ellesmere Island coast, and there's no question that climate change is driving the drastic ice loss.

The recipe for ice shelf break up

- Temperatures from May to early August in the region have been 5 degrees Celsius warmer than the 1980 to 2010 average, University of Ottawa glaciology professor Luke Copland said.
- The high temperatures combined with a warming pattern that is much faster than the rest of globe are to blame for the disintegration of the ice shelves.
- Above-normal air temperatures, offshore winds and open water in front of the ice shelf are all part of the recipe for ice shelf break up.

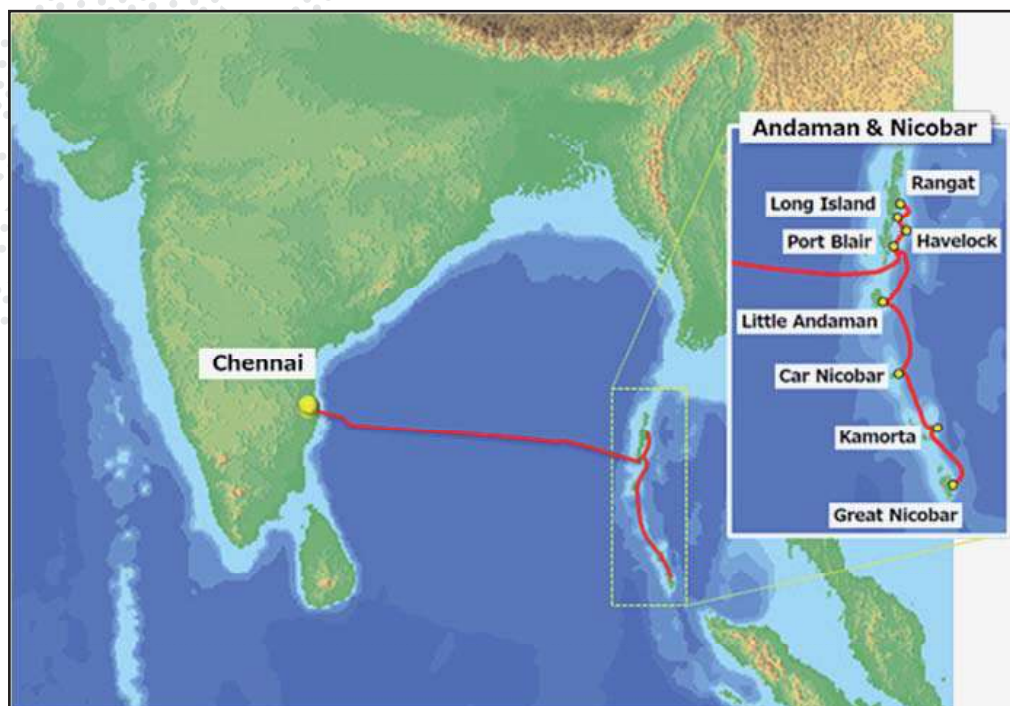
CHENNAI-ANDAMAN AND NICOBAR ISLAND SUBMARINE CABLE SYSTEM

◎ CONTEXT:

Prime Minister Narendra Modi inaugurated the first ever undersea optical fibre cable project for Andaman and Nicobar Islands which will provide high speed broadband connections in the union territory at par with services in the mainland.

◎ ABOUT:

- The project envisages better connectivity from Chennai to Port Blair and seven other Islands -- Swaraj Deep (Havelock), Long Island, Rangat, Hutbay (Little Andaman), Kamorta, Car Nicobar and Campbell Bay (Great Nicobar).
- The project has been implemented at a cost of ₹ 1,224 crore. It is funded by the government through the Universal Service Obligation Fund under the ministry of communications.
- According to official data, internet with speed of 400 gigabyte (Gb) per second will be provided at Port Blair and for other islands it will be 200 Gb per second.
- The foundation for 2,312-kilometer Chennai - Andaman and Nicobar Islands (CANI) connecting submarine optical fibre cable project was laid in 2018.



What is Submarine Communication cable?

- A submarine communications cable is a cable laid on the seabed between land-based stations to transmit telecommunication signals across stretches of ocean and sea.
- The optical fiber elements are typically individually coated with plastic layers and contained in a protective tube suitable for the environment where the cable will be deployed.
- Compared to satellites, using internet connection through submarine cables is more reliable, cost efficient and of large capacity.

Why Andaman and Nicobar islands?

- The Indian Ocean has been the centre of India's trade and strategic prowess for thousands of years.
- Now that India is following the new policy and practice of trade and cooperation in Indo-Pacific, the importance of our islands including Andaman and Nicobar has increased further.
- Under the Act-East policy, Andaman and Nicobar's role in India's strong relations with East Asian countries and other countries associated with the sea is crucial and it is going to increase.

Significance of the development

- **Digital connectivity:** The project - said to be first-of-its-kind in the country, is expected to give tourism, business, e-commerce and digital education a boost in the union territory, which is also a strategically important frontier in the Bay of Bengal.
- **Digital connectivity plus tourism:** 2,300-km cable will not just boost digital connectivity of Andaman Islands with the mainland but also boost tourism. Tourists going to Andaman will get a huge benefit of this facility because better net connectivity has become the first priority of any tourist destination.
- **Ease of living:** The project is a commitment towards ease of living. Be it online classes, tourism, banking, shopping or telemedicine, thousands of families in Andaman-Nicobar will now get its access.

INDONESIA'S MOUNT SINABUNG ERUPTED

◎ **CONTEXT:** Indonesia's Mount Sinabung erupted recently, belching a massive column of ash and smoke 5,000 metres (16,400 feet) into the air and plunging local communities into darkness with a thick layer of debris.

◎ **ABOUT:** **What is Mount Sinabung?**

- Mount Sinabung is one of more than 120 active volcanoes in Indonesia, which is prone to seismic activity on the Pacific "Ring of Fire," a ring of volcanoes and moving fault lines that surround the ocean.
- Mount Sinabung had been inactive for centuries until it erupted again in 2010. It has been active ever since, occasionally erupting.
- An eruption in 2014 killed 16 people, while seven died in a 2016 eruption. Tens of thousands of people have been forced to leave their homes around the active volcano over the past few years.

Indonesia and Volcanoes

- Indonesia is home to many active volcanoes, due to its position on the "Ring of Fire", or the Circum-Pacific Belt, which is an area along the Pacific Ocean characterised by active volcanoes and frequent earthquakes.

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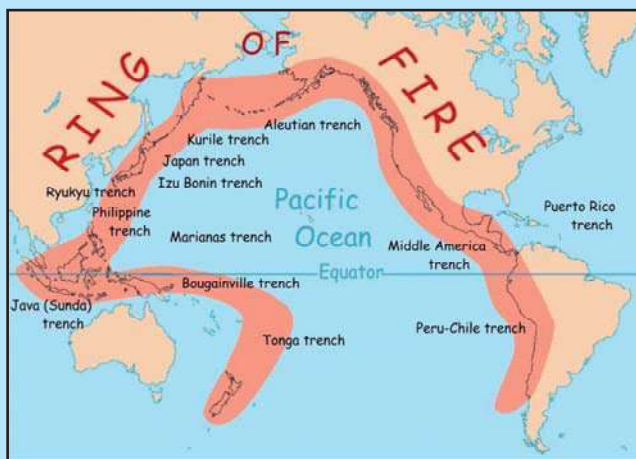
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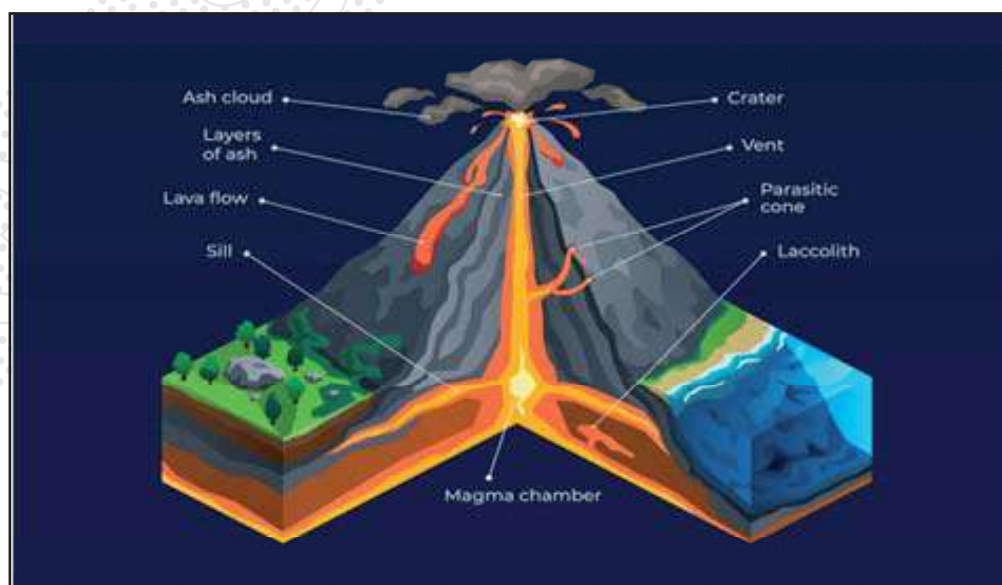
- The Ring of Fire is home to about 75 per cent of the world's volcanoes and about 90 per cent of its earthquakes.

What is Ring of Fire?

- Also known as the Circum-Pacific Belt, the Ring of Fire traces the meeting points of many tectonic plates, including the Eurasian, North American, Juan de Fuca, Cocos, Caribbean, Nazca, Antarctic, Indian, Australian, Philippine, and other smaller plates, which all encircle the large Pacific Plate.
- The Ring of Fire is home to 75% of the world's volcanoes and 90% of its earthquakes.
- The Ring of Fire is home to the deepest ocean trench, called the Mariana Trench.
 - Located east of Guam, the 7-mile-deep Mariana Trench formed when one tectonic place was pushed under another.



The geography of Volcano



- A volcano can be active, dormant or extinct. An eruption takes place when magma (a thick flowing substance), formed when the earth's mantle melts, rises to the surface.
- Because magma is lighter than solid rock, it is able to rise through vents and fissures on the surface of the earth.

- After it has erupted, it is called lava.
- Not all volcanic eruptions are explosive, since explosivity depends on the composition of the magma.
 - When the magma is runny and thin, gases can easily escape it, in which case, the magma will flow out towards the surface.
- On the other hand, if the magma is thick and dense, gases cannot escape it, which builds up pressure inside until the gases escape in a violent explosion

Looking at numbers

- According to the National Museum of Natural History (NMNH), USA, generally, there are about 20 volcanoes actively erupting every day.
- As per the weekly volcanic activity report prepared by The Smithsonian and US Geological Survey's (USGS) Volcano Hazards program, for the week ending August 4, 2020, there were 17 volcanoes across the world with continuing eruptions.
- As per USGS, there are about 1,500 potentially active volcanoes worldwide.

INCOIS FOUND A METHOD OF IMPROVING WAVE FORECAST

◎ CONTEXT:

Researchers at the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, have found a method of improving wave forecasts. They have ascertained that certain phases of boreal summer intra seasonal oscillation or BSISO induce high-wave activity in the northern Indian Ocean and Arabian Sea.

How they did it?

- The team worked with data on Indian ocean waves such as their height, period, and surface winds over a span of 38 years from 1979-2017.
- By using mathematical data analysis models, the research team studied the relationship between various phases of BSISO and the height of waves in the Indian Ocean.
- They found that waves induced by active phases of BSISO are nearly 0.5 meters higher than those which occur during other phases of BSISO.
- The active phases of BSISO occur between June to August which are the monsoon summer months.

What is Boreal Summer Intra-Seasonal Oscillation (BSISO)?

- **Boreal Summer Intra-Seasonal Oscillation (BSISO)** is the movement of convection (heat) from the Indian Ocean to the western Pacific in roughly every 10–50 days of the monsoon season from June to September.
- BSISOs represent monsoon's 'active' and 'break' periods, in which weeks of heavy rainfall give way to brilliant sunshine before starting all over again.
- The active phase also enhances monsoon winds and hence the surface waves.

What are waves?

- Waves are actually energy passing through the water, causing it to move in a circular motion.

- When a wave encounters a surface object, the object appears to lurch forward and upward with the wave, but then falls down and back in an orbital rotation as the wave continues by, ending up in the same position as before the wave came by.
- If one imagines wave water itself following this same pattern, it is easier to understand ocean waves as simply the outward manifestation of kinetic energy propagating through seawater.
- In reality, the water in waves doesn't travel much at all. The only thing waves do transmit across the sea is energy.

Significance of the findings

- **Better forecast:** The finding will help to improve wave forecasts in the Indian coastal region and help mitigate the adverse impacts of high waves such as coastal flooding and erosion. This finding has a great significance in developing seasonal and climate forecast service for waves and coastal erosion for India.
- **Effective planning:** It will also aid better planning of sea navigation routes in the northern Indian Ocean waters.
- **Efficient coastal and marine management:** Wave forecast advisories based on the BSISO would be more useful for efficient coastal and marine management

CITIZENSHIP OF BUDDHA: BEYOND INDIA AND NEPAL WAR OF WORDS

◎ CONTEXT:

As though the bickering over the birthplace of Lord Ram and his nationality was not enough, statements were flying about Gautam Buddha and his nationality. This time, Buddha was drawn into Nepal-India politics by S Jaishankar, the Indian minister for external affairs.

◎ ABOUT:

Who was Buddha?

- "Buddha" means "one who is awake." Gautama Buddha was a contemporary of Mahavira. Gautama Buddha's royal name was Siddhartha.
- He was the son of Suddhodhana, the Chief of Sakya clan of Kapilvastu in the Nepal Tarai area. He was born in 566 B.C. in the village of Lumbini a few miles from Kapilvastu.
- The Buddha who lived 2,600 years ago was not a god. He was an ordinary person.
- Facts also suggest that a young Siddhartha Gautam left his father's palace before settling at a site where he attained enlightenment. The place is now in present-day India, and is known as Bodh Gaya.
- He discovered four noble truths and the Eightfold Path to Nirvana, or ultimate bliss.
- **Noble Truths:** The Four Noble Truths of Buddhism:
 - existence is suffering
 - the cause of suffering is craving and attachment
 - suffering ceases at some point and turns to Nirvana (liberation or total bliss)
 - there is a path to Nirvana which is made up of eight steps, sometimes called the Eightfold Path.
 - The Eightfold Path to Nirvana is to be "right" in all these areas: concentration, views, speech, resolve, action, livelihood, effort, and mindfulness.

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- **Major Schools:** There are two major schools of Buddhism: Mahayana and Theravada or Hinayana. There is a third school, the Vajrayana, but it only has a small following.

A war of words

- Nepal's Ministry of Foreign Affairs on Sunday evening issued a statement to assert that Buddha was born in Nepal. He stated-
 - It is a well-established and undeniable fact proven by historical and archaeological evidence that Gautam Buddha was born in Lumbini, Nepal.
 - Lumbini, the Birthplace of Buddha and the fountain of Buddhism, is one of the UNESCO World Heritage Sites.
- Meanwhile, in a damage-control exercise, India's Ministry of External Affairs also issued a statement.
 - He referred to the shared Buddhist heritage [between Nepal and India].
 - There is no doubt that Gautam Buddha was born in Lumbini, which is in Nepal'.

India and Nepal

- India and Nepal enjoy shared history, culture and heritage. And, naturally, they share some irritants that raise their ugly heads once in a while.
- The relationship between the two countries has hit a low lately over territories on the north-western ridge of Nepal.
- Even though both Kathmandu and New Delhi have expressed their willingness to hold diplomatic dialogue to resolve the issue, talks have failed to materialise. Amid this, a controversy over Gautam Buddha certainly does not help.

Can India claim legitimacy?

- Despite the fact that it is host to a relatively small population of Buddhists, India can claim legitimacy in its promotion of Buddhist diplomacy for a number of reasons.
 - First, the Buddhist faith originated in India, therefore granting it singular historical legitimacy.
 - Second, India has numerous sites of importance to the Buddhist faith, such as Bodh Gaya, Sarnath, and Nalanda.
 - Third, India has nurtured an image of being a protector of the persecuted through the presence of the Dalai Lama and the Tibetan parliament-in-exile in Dharamshala.
- Deepening ties with Asian nations on the basis of Buddhism could potentially feed into the government's larger policy objectives, for example, the 'Neighbourhood First' policy, and the 'Act East' policy.

CALL TO BRING ARUNACHAL PRADESH UNDER THE AMBIT OF THE SIXTH SCHEDULE

◎ CONTEXT:

The revival of the demand for two autonomous councils has made political parties and community-based groups call for bringing the entire Arunachal Pradesh under the ambit of the Sixth Schedule or Article 371 (A) of the Constitution.

◎ ABOUT:

What is the Sixth Schedule?

- According to **Article 244** of the Indian Constitution, the Sixth Schedule consists of provisions for the administration of tribal areas in-

- Assam
- Meghalaya
- Tripura
- Mizoram
- Passed by the Constituent Assembly in 1949, it seeks to safeguard the rights of tribal population through the formation of **Autonomous District Councils (ADC)**.
- ADCs are bodies representing a district to which the Constitution has given varying degrees of autonomy within the state legislature.
- The governors of these states can-
 - He/she is empowered to reorganise boundaries of the tribal areas.
 - He/she can choose to include or exclude any area, increase or decrease the boundaries and unite two or more autonomous districts into one.
 - He/she can also alter or change the names of autonomous regions without a separate legislation.

Autonomous districts and regional councils

- Along with ADCs, the Sixth Schedule also provides for separate **Regional Councils** for each area constituted as an autonomous region.
- In all, there are 10 areas in the Northeast that are registered as autonomous districts –
 - three in Assam, Meghalaya and Mizoram
 - one in Tripura
- These regions are named as district council of (name of district) and regional council of (name of region).
- Each autonomous district and regional council consists of not more than 30 members, of which four are nominated by the governor and the rest via elections. All of them remain in power for a term of five years.

Bodoland Territorial Council

- The Bodoland Territorial Council, however, is an exception as it can constitute up to 46 members out of which 40 are elected.
 - Of these 40 seats, 35 are reserved for the Scheduled Tribes and non-tribal communities, five are unreserved and the rest six are nominated by the governor from unrepresented communities of the Bodoland Territorial Areas District (BTAD).

What are the demands?

- The demand is to bring entire Arunachal Pradesh under the ambit of the Sixth Schedule or under Article 371(A) or 371(G).
- These articles would provide special rights to all Arunachalees on matters of religious and social practices, customary law, land (ownership, transfer and control) etc under the India Constitution.

The current governing structure

- **Fifth Schedule:** The Frontier State bordering Bhutan, China and Myanmar is under the **Fifth Schedule** that “does not provide special rights for the indigenous communities” unlike the Sixth Schedule.
- **Sixth Schedule:** The Sixth Schedule currently includes 10 autonomous district councils in four northeastern States — Assam, Meghalaya, Mizoram and Tripura.

- **Article 371 (A):** Nagaland, on the other hand, is governed by Article 371 (A), which says that no Act of Parliament shall apply in the State in several areas unless the Nagaland Assembly so decides by a resolution.
 - These include administration of civil and criminal justice involving decisions according to Naga customary law and ownership and transfer of land and its resources.

UNION PUBLIC SERVICE COMMISSION GETS A NEW CHAIRMAN

◎ **CONTEXT:** Educationist Professor Pradeep Kumar Joshi is appointed as the chairman of the Union Public Service Commission (UPSC) that conducts the civil services examination to select India's bureaucrats and diplomats among others.

- ◎ **ABOUT:**
- The Constitution of India provides for four watchdogs to keep a check on different functions of the State.
 - **The Supreme Court:** SC keeps a check on the judicial functions of the state.
 - **The Election Commission of India:** ECI ensures free and fair elections.
 - **The Comptroller and Auditor General of India:** The Comptroller and Auditor General keep in check the finances of the country.
 - **The Union Public Service Commission:** UPSC is a watchdog to ensure fair recruitment on the basis of merit.
 - The Constitution visualises the UPSC to be the 'watch-dog of merit system' in India.

Constitutional Provisions

Article 315 to 323 of Part XIV of the Indian Constitution deals with provisions relating to the Union Public Service Commission as well as the State Public Service Commission.

Constitutional Provisions	
Article-315	Public Service Commissions for the Union and for the States.
Article-316	Appointment and term of office of members
Article-317	Removal and suspension of a member of a Public Service Commission.
Article-318	Power to make regulations as to conditions of service of members and staff of the Commission
Article-319	Prohibition as to the holding of offices by members of Commission on ceasing to be such members
Article-320	Functions of Public Service Commissions
Article-321	Power to extend functions of Public Service Commissions
Article-322	Expenses of Public Service Commissions
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Functions of the Commissions

- Under Article 320 of the Constitution of India, the Commission is, inter-alia, required to be consulted on all matters relating to recruitment to civil services and posts. The functions of the Commission under Article 320 of the Constitution are:
 - Conduct examinations for appointment to the services of the Union.
 - Direct recruitment by selection through interviews.
 - Appointment of officers on promotion / deputation / absorption.
 - Framing and amendment of Recruitment Rules for various services and posts under the Government.
 - Disciplinary cases relating to different Civil Services.
 - Advising the Government on any matter referred to the Commission by the President of India.

Composition of UPSC

- The Commission consists of a chairman and other members appointed by the President of India.
- Usually, the Commission consists of 9 to 11 members including the chairman.
- Every member holds office for a term of six years or until he attains the age of sixty-five years, whichever is earlier.

NEW TICK-BORNE VIRUS IN CHINA

◎ CONTEXT:

A new infection disease called Severe Fever with Thrombocytopenia Syndrome (SFTS), caused by a tick-borne virus, has killed seven and infected at least 60 in China, setting off alarm bells among health officials in the country.

◎ ABOUT:

What is SFTS Virus?

- Severe fever with thrombocytopenia syndrome virus (SFTSV) belongs to the **Bunyavirus family** and is transmitted to humans through **tick bites**.
- The virus was first identified in China over a decade ago. The first few cases were reported in rural areas of Hubei and Henan provinces in 2009.
- **Prime vector:** Virologists believe an Asian tick called **Haemaphysalis longicornis** is the primary vector, or carrier, of the virus.
- **Peak time:** The disease is known to spread between March and November. The total number of infections generally peaks between April and July.
- **Who are vulnerable?** Farmers, hunters and pet owners are particularly vulnerable to the disease as they regularly come in contact with animals that may carry the *Haemaphysalis longicornis* tick.
- **Transmission:** Scientists have found that the virus is often transmitted to humans from animals like goats, cattle, deer and sheep.
 - Despite being infected by the virus, animals generally do not show any symptoms associated with SFTSV.

What are Ticks?

- Ticks are blood-sucking bugs, living by feeding on the blood of mammals, birds, and sometimes reptiles and amphibians.
- They are mostly found in bushes, grass and shrubs. The eight-legged bugs are arachnids -- related to spiders.
- According to the **WHO**, ticks are vectors of a large number of diseases including
 - relapsing fever
 - Rocky Mountain spotted fever
 - Q fever
- Lyme disease

Fatality rate

- The current case fatality rate rests between approximately 16 and 30 per cent.
- Due to the rate at which it spreads and its high fatality rate, SFTS has been listed among the top 10 priority diseases blue print by the World Health Organisation (WHO).

What are the symptoms?

- **Incubation period:** The incubation period is anywhere between seven and 13 days after the onset of the illness.
- Patients suffering from the disease usually experience a whole range of symptoms, including, fever, fatigue, chill, headache, lymphadenopathy, anorexia, nausea, myalgia, diarrhea, vomiting, abdominal pain, gingival hemorrhage, conjunctival congestion, and so on.
- Some of the early warning signs of the disease include severe fever, thrombocytopenia or low platelet count and leukocytopenia, which is low white blood cell count.
- The risk factors observed in more serious cases include multi-organ failure, hemorrhagic manifestation and the appearance of central nervous system (CNS) symptoms.

Is it treatable?

- While a vaccine to treat the disease is yet to be successfully developed, the antiviral drug **Ribavirin** is known to be effective in treating the illness.
- In order to avoid contracting the illness, various government authorities, including China's Centers for Disease Control and Prevention (CDC), urges the general public to avoid wearing shorts while walking through tall grass, the woods, and any other environment where ticks are likely to thrive.

STARSHIP SPACECRAFT

◎ CONTEXT:

Just two days after SpaceX's Crew Dragon capsule landed in the Gulf of Mexico, a prototype of the company's uncrewed "Mars ship", a stainless steel test vehicle called SN5, and which is a part of the Starship spacecraft, successfully flew to an altitude of over 500 feet for a little less than 60 seconds.

◎ ABOUT:**What is Starship?**

- Designed by SpaceX, Starship is a spacecraft and super-heavy booster rocket meant to act as a **reusable transportation system** for crew and cargo to the Earth's orbit, Moon and Mars.

- SpaceX has described Starship as “the world’s most powerful launch vehicle” with an ability to carry over 100 metric tonnes to the Earth’s orbit.
- Starship has been under development since 2012 and is a part of Space X’s central mission to make interplanetary travel accessible and affordable and to become the first private company to do so.
- Therefore, the company is working on building a fleet of reusable launch vehicles, capable of carrying humans to Mars and other destinations in the solar system.

Why the focus is on ‘reusable transportation system’?

- Reusability is at the heart of making interplanetary travel accessible.
- Since a majority of the launch cost is attributed to the expense of building a rocket which is ultimately designed to burn up during re-entry.
- Following the commercial model, a rapidly reusable space launch vehicle could reduce the cost of traveling to space by a hundredfold.

Significance of the Starship

- **Functional at lower cost:** Starship can deliver satellites further and at lower marginal costs than SpaceX’s Falcon vehicles and it can ferry both cargo and crew to the International Space Station (ISS).
- **Ability to carry large amounts of cargo:** Once developed, Starship is also expected to help carry large amounts of cargo to the Moon, for human spaceflight development and research.
- **Interplanetary missions:** Beyond the Moon, the spacecraft is being designed for carrying crew and cargo for interplanetary missions as well.



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